

A new Abstract has been provided, as required.

### CLAIMS REJECTIONS

#### Claims Rejections Under 35 USC § 112

##### Claims 1 to 10

Claims 8, 9, and 10 have been rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. Applicant respectfully traverses this rejection on the ground that the person of ordinary skill in the art would not be confused as to the meaning or scope of the claims. Nevertheless, these claims have been amended for clarity with the specification and Drawings, and not in response to any statutory requirement.

#### Claims Rejections Under 35 USC § 102(b) and 35 USC § 103(a)

Claims 1 to 7 have been rejected as being unpatentable under either of 35 USC § 102(b) or 35 USC § 103(a) as being unpatentable over Chapman. In response, the Applicant submits that the amended claims are now patentably distinguishable over Chapman.

With respect to claim 1, claim 1 defines a method of manufacturing an absorbent and time release material comprising the steps of:

soaking a fibrous material in water to form a first intermediate;

macerating the first intermediate to form a pulp;

forming said pulp into a block;

drying said block in a controlled atmosphere;

impregnating said dried block with a preselected substance;

grinding said impregnated block to form a powdered material.

The Applicant submits that the invention as claimed in claim 1 is patentable over Chapman for the reason that Chapman's process does not include the steps of:

- soaking a fibrous material in water to form a first intermediate, and
- macerating the first intermediate to form a pulp.

Chapman discloses a method of impregnating a pulp with a zwitterionic surfactant to improve comminution characteristics of the cellulosic fiber pulp sheet. Notably, the manufacture of Chapman's cellulosic fiber pulp sheet deliberately excludes the aforementioned process steps. This is because the aforementioned process steps of the Applicant's claimed invention necessarily result in a fiber pulp sheet comprising of short strand fibers. Importantly, Chapman deliberately attempts to avoid the formation

of short strand cellulosic fibers at any point in his process, as explained at column 1, lines 39 to 48;

"In particular, such air-laid products, because of the economies involved in the relatively simple process of fiberizing and reconstituting pulp sheets to form absorbent batts or pads by the air-laid method, have been widely used in absorbent products of a disposable nature as set forth above. The comminution of cellulosic fiber pulp sheets, and in particular wood pulp sheets, has in practice been troublesome in the respect of requiring large amounts of power, producing high noise levels and resulting in large amounts of broken fibers and fines **rather than the desired long whole fibers.**"

As such, the Applicant submits that Chapman's process specifically excludes the aforementioned process steps of the Applicant's claimed invention as claimed in claim 1. The Applicant, therefore submits, on this basis, the invention as claimed in claim 1 is patentably distinguishable over Chapman.

With respect to claims 2 to 10, the Applicant submits that claims 2 to 10 are directly or indirectly dependent on claim 1. As such, and relying on the foregoing reasons with respect to claim 1, the Applicant further submits that claims 2 to 10 are also patentably distinguishable over Chapman.

#### Claims 17 and 18

Claim 17 defines a method of manufacturing an absorbent and time release material comprising the steps of:

providing a pulp from a fibrous material;

forming said pulp into a block;

drying said block in a controlled atmosphere;

impregnating said dried block with a preselected substance;

and

grinding said impregnated block to form a powdered material wherein said preselected substance is selected from the group consisting of paraffin wax, beeswax, wax derived from animal products, wax derived from vegetable products and petroleum wax, motor oil and grease.

Claim 17 incorporates the limitations recited in claims 8 and 9 within previous claim 1. The Examiner has previously remarked that claims 8 and 9 are free of the prior art. As such, the Applicant submits that claim 7 is patentably distinguishable over Chapman.

With respect to claim 18, claim 18 is directly dependent on claim 17. As such, and relying on the foregoing reasons, the Applicant also submits that claim 18 is patentably distinguishable over Chapman.

#### Claims 19 to 28

Claim 19 defines an absorbent and time release material manufactured by a method comprising the steps of:

soaking a fibrous material in water to form a first intermediate;

macerating the first intermediate to form a pulp;

forming said pulp into a block;

drying said block in a controlled atmosphere;

impregnating said dried block with a preselected substance;

grinding said impregnated block to form a powdered material..

The Applicant submits that the invention as claimed in each of claims 19-28 is patentably distinguishable over Chapman.

With respect to the invention claimed in claim 19, claim 19 defines a time absorbent and time release material manufactured by a method comprising, *inter alia*,:

- soaking a fibrous material in water to form a first intermediate; and
- macerating the first intermediate to form a pulp.

By following these method steps, the absorbent and time release material of the invention as claimed in claim 1, is distinguishable over the product disclosed in Chapman. Unlike the Applicant's absorbent and time release material as claimed in claim 13, the product disclosed in Chapman comprises long strand fibers. In fact, Chapman teaches away from employing method steps (such as the aforementioned method steps of claim 19) to manufacture an absorbent and time release material having short strand fibers. In contrast, the Applicant's absorbent and time release material, by

virtue of the aforementioned process steps, comprises of relatively short strand fibers. As such, the Applicant submits that the absorbent and time release material as claimed in claim 1 is patentably distinguishable over the product disclosed in Chapman.

With respect to claims 20-28, claims 20-28 are either directly or indirectly dependent on claim 19. As such, and relying on the foregoing reasons with respect to claim 19, the Applicant submits that the claims 14 to 22 are also patentably distinguishable over Chapman.

Claim 29

In effect, claim 29 defines an absorbent and time release material manufactured by the method recited in claim 17. The method recited in claim 17 incorporates the limitations recited in claims 8 and 9 within previous claim 1. The Examiner has previously indicated that claims 8 and 9 are free of the prior art. As such, the Applicant submits that claim 23 is patentably distinguishable over Chapman.

In view of the above amendments and remarks, it is believed that this application is now in condition for allowance, and a Notice thereof is respectfully requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 625-3500. All

correspondence should continue to be directed to our  
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Respectfully submitted,



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Marked-up Claims

1. (Once Amended) A method of manufacturing an absorbent and time release material comprising the steps of:

soaking a fibrous material in water to form a first intermediate [providing a pulp from a fibrous material];  
macerating the first intermediate to form a pulp;  
forming said pulp into a block;  
drying said block in a controlled atmosphere;  
impregnating said dried block with a preselected substance;  
grinding said impregnated block to form a powdered material.

2. (Once Amended) [A] The method according to claim 1, wherein said pulp comprises cloth fibers.

3. (Once Amended) [A] The method according to claim 1, wherein said pulp comprises cellulose fibers.

4. (Once Amended) [A] The method according to claim 3, wherein said cellulose fibers are dried paper pulp.

5. (Once Amended) [A] The method according to claim 3, wherein said cellulose fibers are short strand wood fibers.

6. (Once Amended) [A] The method according to claim 3, wherein said cellulose fibers are long strand wood fibers.

7. (Once Amended) [A]The method according to claim 3, wherein said cellulose fibers are wood fibers from the processing of wood fiber fluff.

8. (Once Amended) [A]The method according to claim 1, wherein said substance is selected from the group [comprising]consisting of: paraffin wax, beeswax, wax derived from animal products and wax derived from vegetable products.

9. (Once Amended) [A]The method according to claim 1, wherein said substance is selected from the group [comprising]consisting of: petroleum wax, motor oil and grease.

10. (Once Amended) A method according to claim 1, wherein said pulp includes powdered waste material selected from [one or more of the following waste material]the group consisting of: railway ties, telephone poles, creosote, powdered coal, calcium oxalate-solids, [krofta]KROFTA™ fines, or bark.